UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
RYMAN, DANIEL J

ART UNIT	PAPER NUMBER
2616	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

PTOL-90A (Rev. 10/06)

	Application No.	Applicant(s)
Office Action Summary	10/066,550	WYATT, RICHARD M.
	Examiner	Art Unit
	Daniel J. Ryman	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>17 November 2006</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-31</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) <u>28-30</u> is/are allowed.

6)☒ Claim(s) <u>1-27 and 31</u> is/are rejected.

7)☒ Claim(s) <u>1,5,8,12,14-16,19,21-23,26 and 28-31</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>11/17/06</u>.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments, see Response, filed 17 November 2006, with respect to the

rejection(s) of claim(s) 1-25 and 27 under 35 U.S.C. §§ 102(b) and 103(a) have been fully

considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon

further consideration, a new ground(s) of rejection is made in view of Carvey et al. (USPN

6,359,879) and Merchant (USPN 6,460,088).

Claim Objections

2.   Claim 1 is objected to because of the following informalities: in line 9, "link, reducing"

should be "link, thereby reducing". Appropriate correction is required.

3.   Claim 5 is objected to because of the following informalities: in line 5, "any member of

the logical link" should be "any of the physical links in the logical link" since "member of the

logical link" lacks antecedent basis. Appropriate correction is required. ·

4.   Claim 8 is objected to because of the following informalities: in line 11, "link, reducing"

should be "link, thereby reducing". Appropriate correction is required.

5.   Claim 12 is objected to because of the following informalities: in line 4, "any member of

the logical link" should be "any of the physical links in the logical link" since "member of the

logical link" lacks antecedent basis. Appropriate correction is required.

6.   Claim 14 is objected to under 37 CFR 1.75(c), as being of improper dependent form for

failing to further limit the subject matter of a previous claim. Applicant is required to cancel the

claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the

claim(s) in independent form. Claim 14 recites: "wherein at least two of the physical links

coupled to external ports on different switch devices." Claim 8, which claim 14 depends upon, recites in lines 6-7: "at least two of the physical links coupled to external ports on different switch devices."

7.   Claim 15 is objected to because of the following informalities: in line 2, "links comprising" should be "links, comprising" and, in line 11, "link, reducing" should be "link, thereby reducing". Appropriate correction is required.

8.   Claim 16 is objected to because of the following informalities: in lines 1-2, "wherein the trunk table selector includes a pointer to the trunk table" should be "further comprising the step of selecting a trunk table by a trunk table selector using a pointer to the trunk table" since, as currently worded, "the trunk table selector" and "the trunk table" lack antecedent basis. Appropriate correction is required.

9.   Claim 19 is objected to because of the following informalities: in line 4, "any member of the logical link" should be "any of the physical links in the logical link" since "member of the logical link" lacks antecedent basis. Appropriate correction is required.

10.   Claim 21 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Claim 21 recites: "wherein at least two of the physical links are coupled to external ports on different switch devices." Claim 15, which claim 21 depends upon, recites in lines 5-6: "at least two of the physical links coupled to external ports on different switch devices."

11.   Claim 22 is objected to because of the following informalities: in lines 1-2, "logical link implemented" should be "logical link, the method implemented" to clarify that it is the method that is implemented in a switch device; in line 3, "coupling a destination" should be "coupling the multistage switch to a destination" to clarify that the logical link couples the multistage switch to the destination; in line 4, "comprising" should be "the method comprising"; and in line 12, "received data to the selected internal output port" should be "received data to the internal output port indicated by the forward vector" since "the selected internal output port" lacks antecedent basis. Appropriate correction is required.

12.   Claim 23 is objected to because of the following informalities: in line 3, "suppression entry from" should be "suppression entry selected from". Appropriate correction is required.

13.   Claim 26 is objected to because of the following informalities: in line 1, "wherein switch" should be "wherein said switch"; in line 1, "devices in" should be "devices are coupled in"; in line 2, "matrix of switch" should be "matrix, each of said switch"; in line 2, "devices includes a" should be "devices including: a"; in lines 2-3, "coupled to output ports" should be "coupled to output ports of the switch device"; and in line 4, "an egress device, an egress" should be "an egress device, said egress". Appropriate correction is required.

14.   Claim 28 is objected to because of the following informalities: in line 10, "switch devices" should be "said switch devices"; in line 10, "devices in" should be "devices being coupled in"; in line 10, "matrix including at" should be "matrix, each of said switch devices including: at"; in line 11, "output ports, an ingress" should be "output ports of the switch device, an ingress"; and in lines 12-13, "an egress device, an egress" should be "an egress device, said egress". Appropriate correction is required.

15.   Claim 29 is objected to because of the following informalities: in line 6, "switch devices,

switch devices in a row" should be "switch devices, said switch devices being coupled in a row";

in lines 6-7, "matrix including at" should be "matrix, each of said switch devices including: at";

in line 8, "output ports, an ingress" should be "output ports of the switch device, an ingress"; and

in line 10, "an egress device, an egress" should be "an egress device, said egress". Appropriate

correction is required.

16.   Claim 30 is objected to because of the following informalities: in line 6, "switch devices,

switch devices in a row" should be "switch devices, said switch devices being coupled in a row";

in line 7, "matrix include at" should be "matrix, each of said switch devices including: at"; in

line 7, "output ports, an ingress" should be "output ports of the switch device, an ingress"; and in

line 9, "an egress device, an egress" should be "an egress device, said egress". Appropriate

correction is required.

17.   Claim 31 is objected to because of the following informalities: in line 1, "logical link

implemented" should be "logical link, the method implemented" to clarify that it is the method

that is implemented in a switch device; in line 3, "coupling a destination" should be "coupling

the multistage switch to a destination" to clarify that the logical link couples the multistage

switch to the destination; in line 4, "comprising" should be "the method comprising"; in line 12,

"received data to the selected internal output port" should be "received data to the internal output

port indicated by the forward vector" since "the selected internal output port" lacks antecedent

basis; in line 12, "wherein switch" should be "wherein said switch"; in line 13, "devices in"

should be "devices are coupled in"; in line 13, "matrix include at" should be "matrix, each of

said switch devices including: at"; in lines 13-14, "coupled to output ports" should be "coupled

to output ports of the switch device"; and in line 15, "an egress device, an egress" should be "an

egress device, said egress". Appropriate correction is required.

Claim Rejections - 35 USC § 112

18.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the
> subject matter which the applicant regards as his invention.

19.   Claims 22-27 and 31 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

20.   Claims 22 and 31 recite the limitation "forwarded to a member of the logical link" in

lines 5-6. It is unclear in the context of the claim what constitutes "a member of the logical link."

Examiner suggests amending line 1 to read: "A method for forwarding received data for a logical

link, the logical link comprising a plurality of physical links". In addition, Examiner suggests

amending lines 5-6 to read: "forwarded to one of the plurality of physical links comprising the

logical link."

21.   Claims 22 and 31 recite the limitation "each internal output port" in line 8. There is

insufficient antecedent basis for this limitation in the claim. Examiner suggests line 3 from

"switch devices, the logical link" to "switch devices, each switch device connected to other

switch devices in the matrix of switch devices through internal output ports, the logical link".

22.   Claims 22 and 31 recite the limitation "the switch device" in line 8. There is insufficient

antecedent basis for this limitation in the claim. The claim previously refers to "a matrix of

switch devices." It is unclear to which switch device in the matrix of switch devices the phrase

"the switch device" refers. Examiner suggests amending line 5 from "upon determining that the

received" to "upon determining in a switch device to forward the received data that the

received". In addition, Examiner suggests amending the phrase "the switch device" in lines 8 and

9 to "the forwarding switch device".

Claim Rejections - 35 USC § 102

23.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

24.   Claims 1-4, 7-11, 14-18, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated

by Carvey et al. (USPN 6,359,879).

25.   Regarding claim 1, Carvey discloses a multistage switch to which a logical link couples a

destination (col. 3, lines 56-60, where the switch is coupled to a destination through a "single

composite trunk," i.e. a logical link, and col. 4, lines 5-8, where the switch fabric is a "multi-

stage network"), the logical link comprising a plurality of physical links (col. 3, lines 58-60,

where the single composite trunk is composed of multiple trunks, i.e. physical links), the

multistage switch comprising: a plurality of external ports, each physical link coupled to one of

the plurality of external ports (Fig. 3 and col. 3, line 66-col. 4, line 3, where "the router

comprises . . . line cards, each of which terminates a trunk and serves as a port between the trunk

and routing fabric," such that the plurality of line cards are "a plurality of external ports"); and a

matrix of coupled switch devices (col. 4, lines 5-8, where the switch fabric, i.e. matrix, is a

"multi-stage network"), a frame received for the destination being forwarded through at least one

of the switch devices to one of the physical links in the logical link (col. 2, lines 57-67, where a

frame is forwarded through the switch fabric to one of the physical trunks in the composite trunk,

i.e. physical link in the logical link, see also col. 4, line 66-col. 5, line 12), a switch device within

the matrix which receives the forwarded frame performing a forwarding decision based on the

logical link to forward the frame toward less than all of the physical links of the logical link,

reducing the number of subsequent switch devices through which the frame is forwarded (where

the packet is forwarded through the switch fabric based on a determined route, col. 5, line 63-col.

6, line 17, wherein the route is used to forward the frame toward less than all of the physical

trunks of the composite trunk thereby reducing the number of hops, i.e. "switch devices,"

through which the frame is forwarded, col. 4, lines 9-25, and where the frame is forwarded over

a "multi-stage network," col. 4, lines 5-8, such that a switch device within the multi-stage

network receives a frame and makes a forwarding decision along possible routes within the

matrix, see also col. 2, lines 57-67).

26.   Regarding claim 2, Carvey discloses that the switch device further comprises: a trunk

table selector which selects a trunk table for the logical link to reduce the number of ports of the

multistage switch through which to forward the frame (col. 6, lines 7-17, where the "fabric route

lookup stage," i.e. a trunk table selector, "uses the route selector and output trunk stored in the

packet descriptor to index a fabric forwarding table," i.e. select a trunk table for the logical link).

27.   Regarding claim 3, Carvey discloses that the trunk table for the logical link is shared by

another logical link (Fig. 6).

28.   Regarding claim 4, Carvey discloses that the switch device further comprises: flow hash

logic which indexes a flow hash for the received frame dependent on a destination address and

source address included in the received frame (col. 5, lines 8-12, where the route is selected "by hashing the flow identifier for the packet," and col. 4, lines 33-44, where the flow identifier includes the destination and source address included in the received frame).

29.   Regarding claim 7, Carvey discloses that at least two of the physical links are coupled to external ports on different switch devices (Fig. 3 and col. 4, lines 17-18, where each line card, i.e. external port connecting to a physical link, connects to one node of the routing fabric, i.e. switch device, such that the two physical links are coupled to external ports on different switch devices, see also col. 3, line 67-col. 4, line 8, where the line cards terminate a trunk and where the fabric is a "multi-stage network").

30.   Regarding claims 8 and 14, Carvey discloses a multistage switch to which a logical link couples a destination (col. 3, lines 56-60, where the switch is coupled to a destination through a "single composite trunk," i.e. a logical link, and col. 4, lines 5-8, where the switch fabric is a "multi-stage network"), the logical link comprising a plurality of physical links (col. 3, lines 58-60, where the single composite trunk is composed of multiple trunks, i.e. physical links), the multistage switch comprising: a plurality of external ports, each physical link coupled to one of the plurality of external ports (Fig. 3 and col. 3, line 66-col. 4, line 3, where "the router comprises . . . line cards, each of which terminates a trunk and serves as a port between the trunk and routing fabric," such that the plurality of line cards are "a plurality of external ports"); a matrix of coupled switch devices (col. 4, lines 5-8, where the switch fabric, i.e. matrix, is a "multi-stage network"), at least two of the physical links coupled to external ports on different switch devices (Fig. 3 and col. 4, lines 17-18, where each line card, i.e. external port connecting to a physical link, connects to one node of the routing fabric, i.e. switch device, such that the two

physical links are coupled to external ports on different switch devices, see also col. 3, line 67-

col. 4, line 8, where the line cards terminate a trunk and where the fabric is a "multi-stage

network"); and means for forwarding a frame received for the destination through at least one of

the switch devices in the matrix to one of the physical links in the logical link (col. 2, lines 57-

67, where a frame is forwarded through the switch fabric to one of the physical trunks in the

composite trunk, i.e. physical link in the logical link, see also col. 4, line 66-col. 5, line 12), the

switch device performing a forwarding decision based on the logical link to forward the frame

toward less than all of the physical links of the logical link, reducing the number of subsequent

switch devices through which the frame is forwarded (where the packet is forwarded through the

switch fabric based on a determined route, col. 5, line 63-col. 6, line 17, wherein the route is used

to forward the frame toward less than all of the physical trunks of the composite trunk thereby

reducing the number of hops, i.e. "switch devices," through which the frame is forwarded, col. 4,

lines 9-25, and where the frame is forwarded over a "multi-stage network," col. 4, lines 5-8, such

that a switch device within the multi-stage network receives a frame and makes a forwarding

decision along possible routes within the matrix, see also col. 2, lines 57-67).

31.   Regarding claim 9, Carvey discloses means for selecting a trunk table for the logical link

to reduce the number of ports of the multistage switch through which to forward the frame (col.

6, lines 7-17, where the "fabric route lookup stage," i.e. a trunk table selector, "uses the route

selector and output trunk stored in the packet descriptor to index a fabric forwarding table," i.e.

select a trunk table for the logical link).

32.   Regarding claim 10, Carvey discloses that the trunk table for the logical link is shared

by another logical link (Fig. 6).

33.   Regarding claim 11, Carvey discloses means for indexing a flow hash for the received

frame dependent on a destination address and source address included in the received frame

(col. 5, lines 8-12, where the route is selected "by hashing the flow identifier for the packet," and

col. 4, lines 33-44, where the flow identifier includes the destination and source address included

in the received frame).

34.   Regarding claims 15 and 21, Carvey discloses a method for providing a multistage

switch, to which a logical link couples a destination through a plurality of physical links (col.

3, lines 56-60, where the switch is coupled to a destination through a "single composite trunk,"

i.e. a logical link, composed of multiple trunks, i.e. physical links, and col. 4, lines 5-8, where the

switch fabric is a "multi-stage network") comprising the steps of: providing a plurality of

external ports, each of the physical links coupled to one of the external ports (Fig. 3 and col. 3,

line 66-col. 4, line 3, where "the router comprises . . . line cards, each of which terminates a

trunk and serves as a port between the trunk and routing fabric," such that the plurality of line

cards are "a plurality of external ports"); providing a matrix of coupled switch devices (col. 4,

lines 5-8, where the switch fabric, i.e. matrix, is a "multi-stage network"), at least two of the

physical links coupled to external ports on different switch devices (Fig. 3 and col. 4, lines 17-

18, where each line card, i.e. external port connecting to a physical link, connects to one node of

the routing fabric, i.e. switch device, such that the two physical links are coupled to external

ports on different switch devices, see also col. 3, line 67-col. 4, line 8, where the line cards

terminate a trunk and where the fabric is a "multi-stage network"); forwarding a frame received

for the destination to one of the physical links in the logical link through at least one of the

switch devices in the matrix (col. 2, lines 57-67, where a frame is forwarded through the switch

fabric to one of the physical trunks in the composite trunk, i.e. physical link in the logical link,

see also col. 4, line 66-col. 5, line 12); and in the switch device receiving the forwarded frame,

performing a forwarding decision based on the logical link to forward the frame toward less than

all of the plural links of the logical link, reducing the number of subsequent switch devices

through which to forward the forwarded frame (where the packet is forwarded through the

switch fabric based on a determined route, col. 5, line 63-col. 6, line 17, wherein the route is used

to forward the frame toward less than all of the physical trunks of the composite trunk thereby

reducing the number of hops, i.e. "switch devices," through which the frame is forwarded, col. 4,

lines 9-25, and where the frame is forwarded over a "multi-stage network," col. 4, lines 5-8, such

that a switch device within the multi-stage network receives a frame and makes a forwarding

decision along possible routes within the matrix, see also col. 2, lines 57-67).

35.   Regarding claim 16, Carvey discloses that the trunk table selector includes a pointer to

the trunk table and the pointer selects the trunk table to use (where a first trunk table is used to

determine a specific output trunk, col. 6, lines 8-13, and a second trunk table is used to determine

a route, col. 6, lines 41-43, such that the fabric route lookup module, i.e. trunk table selector,

must have a mechanism for selecting a trunk table to use, wherein, as broadly defined, the

mechanism for selecting a table is a "pointer").

36.   Regarding claim 17, Carvey discloses that the trunk table for the logical link is shared by

another logical link (Fig. 6).

37.   Regarding claim 18, Carvey discloses indexing a flow hash for the received frame

dependent on a destination address and source address included in the received frame (col. 5,

lines 8-12, where the route is selected "by hashing the flow identifier for the packet," and col. 4,

lines 33-44, where the flow identifier includes the destination and source address included in the

received frame).

Claim Rejections - 35 USC § 103

38.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

39.   Claims 5, 6, 12, 13, 19, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Carvey et al. (USPN 6,359,879) as applied to claims 1, 11, and 15 above, and further in

view of Merchant (USPN 6,460,088).

40.   Regarding claims 5, 12, and 19, Carvey does not expressly disclose that the switch device

further comprises: an echo suppression table which includes an entry for each port, the entry

selected dependent on the port receiving the frame and the entry ensuring that the frame is not

forwarded to any member of the logical link on which it was received. However, Carvey does

disclose consulting tables to determine how to forward a packet (col. 5, line 63-col. 6, line 17).

Carvey also discloses that a switch will receive packets over a physical link constituting part of a

logical link (Fig. 2 and col. 3, lines 51-65, where the routers, i.e. switches, receive packets over a

single trunk of a composite trunk). Merchant teaches, in a system for switching a packet,

eliminating ports on which a packet is received from a forwarding decision to "preven[t] the

scenario whereby a data frame is received at a particular port and is sent out through that same

port" (col. 11, line 67-col. 12, line 7). Therefore, it would have been obvious to one of ordinary

skill in the art at the time of the invention to modify the tables of Carvey to include an echo

suppression table which includes an entry for each port, the entry selected dependent on the port receiving the frame and the entry ensuring that the frame is not forwarded to any member of the logical link on which it was received.

41.   Regarding claims 6, 13, and 20, Carvey in view of Merchant discloses that the echo suppression table includes an entry for each external port at which a frame is received (Merchant: col. 11, line 67-col. 12, line 7).

Allowable Subject Matter

42.   Claims 22-27 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. The prior art does not disclose or fairly suggest, within a switch device in a multistage switch, selecting a trunk table associated with the logical link from a plurality of trunk tables, each trunk table including trunk table entries, each trunk table entry including a bit for each internal output port of the switch device, and then computing a forward vector, using the switch device, for the received data dependent on a selected trunk table entry for the received data, the forward vector indicating the internal output port through which to forward the received data; and forwarding the received data to the internal output port indicated by the forward vector.

43.   Claims 28-30 are allowed. The prior art does not disclose or fairly suggest, in the multistage switch to which a logical link couples a destination, having the switch devices in a row in the matrix include at least one fan-in/fan-out device coupled to output ports, an ingress device having internal input ports connected to said at least one fan-in/fan-out device and internal output ports connected to an egress device, an egress device having internal input ports

connected to said ingress device and internal output ports connected to said at least one fan-in/fan-out device.

44.   Claim 31 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action. The prior art does not disclose or fairly suggest, within a switch device in a multistage switch, selecting a trunk table associated with the logical link from a plurality of trunk tables, each trunk table including trunk table entries, each trunk table entry including a bit for each internal output port of the switch device, and then computing a forward vector, using the switch device, for the received data dependent on a selected trunk table entry for the received data, the forward vector indicating the internal output port through which to forward the received data; and forwarding the received data to the internal output port indicated by the forward vector. In addition, the prior art does not disclose or fairly suggest, in the multistage switch to which a logical link couples a destination, having the switch devices in a row in the matrix include at least one fan-in/fan-out device coupled to output ports, an ingress device having internal input ports connected to said at least one fan-in/fan-out device and internal output ports connected to an egress device, an egress device having internal input ports connected to said ingress device and internal output ports connected to said at least one fan-in/fan-out device.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent

Application Information Retrieval (PAIR) system. Status information for published applications

may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would

like assistance from a USPTO Customer Service Representative or access to the automated

information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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Art Unit 2616